

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### Packaging Plus-La Mirada

California Manufacturing Technology Consulting

#### Packaging Plus LLC Cuts Set-up Time in Half

##### Client Profile:

Packaging Plus LLC is a vertically integrated packaging provider offering design and sourcing, manufacturing, fulfillment and logistics services. The company services major markets including medical, electronic, consumer and food products. Founded in 1983, Packaging Plus LLC employs 150 people at its headquarters in La Mirada, California.

##### Situation:

Packaging Plus LLC identified a need to improve performance through implementing lean manufacturing principles, reducing the amount of energy used per unit of output, and transforming business processes. The majority of their products are categorized as made-to-stock, which results in a significant demand for raw materials, a high level of work-in-process and a significant amount of finished goods on hand. The company's current facility layout was overcrowded, and the existing flow of products created manufacturing and energy use inefficiencies. Packaging Plus LLC contacted California Manufacturing Technology Consulting (CMTC), a NIST MEP network affiliate, for assistance.

##### Solution:

With the assistance of Packaging Plus LLC, CMTC evaluated manufacturing processes and energy consumption by creating a current and future state Value Energy Stream Map; several areas of improvement were identified. CMTC scheduled 2 improvement events (Kaizens) that focused on 1) set-up reduction plant-wide and 2) 5S improvements in the Spyder assembly and packaging area. Two separate week-long improvement events (Kaizens) were implemented. The first was set-up reduction using SMED (single exchange of die) approach plant-wide. Set-up reductions were implemented through documentation of standard operating procedures and training of operators. The second improvement event was implemented in the Spyder assembly and packaging area using 5S lean techniques (sort, set in order, shine, standardize, sustain) to improve throughput. The project started August 2005 and was completed October 2005.

##### Results:

- \* Reduced set-up time by 50 percent.
- \* Improved productivity by 41 percent.
- \* Saved \$558,000 in labor costs annually.
- \* Annual reduction of 613,629 kilowatt hours, saving \$61,000.
- \* Improved productivity in the Spyder assembly and packaging area by 27 percent.
- \* Reduced floor space by 80 square feet.

##### Testimonial:

[www.mep.nist.gov](http://www.mep.nist.gov)



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"CMTC was able to show us how to use less energy in our operations and then they trained us how to do it ourselves."

Scott Lilley, Director of Operations